

with a fungicidal principle such as finely divided sulphur and with an inert powder as a carrying medium for the active ingredients, then the insecticidal and fungicidal properties of the active principles remain unimpaired and the application of the one powder to trees or plants performs the dual purpose efficiently and in a manner which involves a considerable economy of time and expense when compared with the present methods.

The invention comprises a preparation in powder form of nicotine, finely divided sulphur and an inert pulverulent material, the whole being intimately mixed and incorporated.

In one convenient application of our invention, we mix 50 parts by weight of a light mineral powder, such as calcium carbonate with 50 parts by weight of finely divided sulphur and with 2 parts of nicotine, the latter being preferably sprayed upon the inert material before or after the sulphur has been admixed there-

with, and the whole being thoroughly and intimately mixed and incorporated in any suitable form of mixing machine.

We are aware that it has been proposed to make an insecticide by incorporating liquids containing tobacco extract and sulphate of lime and drying the resulting moist powder. Also by adding tobacco to the purifying matter from gas works containing a large proportion of uncombined finely divided sulphur, oxide of iron, tarry and other matter.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

An insecticidal and fungicidal preparation in powder form consisting of nicotine, fine divided sulphur and an inert pulverulent material, the whole being intimately mixed and incorporated, substantially as described.

Dated this 21st day of July, 1924.

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## PATENT SPECIFICATION

225,996



Application Date: Nov. 2, 1923. No. 27,588/23.

Complete Left: July 26, 1924.

Complete Accepted: Dec. 18, 1924.

## PROVISIONAL SPECIFICATION.

## Improvements in Insecticidal and Fungicidal Preparations.

We, FRED HOWLES, a British subject, of Glenluce, Water Park Road, Broughton Park, Manchester, and McDougall & YALDING LIMITED, a company duly organised under the laws of Great Britain, of Hampstead Lane, Yalding, in the County of Kent, do hereby declare the nature of this invention to be as follows:—

This invention has for its object to provide in a convenient form, a preparation which will serve not only for the destruction of insect pests which attack trees and plants but also for the destruction and the prevention of mould and other fungus diseases of the same. Insecticidal preparations are usually applied in the form of washes whilst sulphur preparations for fungus diseases are usually applied in powder form.

We have discovered that if nicotine be worked up into a powder preparation with a fungicidal principle such as finely divided sulphur and with an inert powder as a carrying medium for the active ingredients, then the insecticidal and fungicidal properties of the active

principles remain unimpaired and the application of the one powder to trees or plants performs the dual purpose efficiently and in a manner which involves a considerable economy of time and expense when compared with the present methods.

The invention comprises a preparation in powder form consisting of nicotine, finely divided sulphur and an inert pulverulent material, the whole being intimately mixed and incorporated.

In one convenient application of our invention, we mix 50 parts by weight of a light mineral powder, such as gypsum or hydrated sulphate of lime, with 50 parts by weight of finely divided sulphur and with 2 parts of nicotine, the latter being preferably sprayed upon the inert material before or after the sulphur has been admixed therewith, and the whole being thoroughly and intimately mixed and incorporated in any suitable form of mixing machine.

Dated this 31st day of October, 1923.

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## COMPLETE SPECIFICATION.

## Improvements in Insecticidal and Fungicidal Preparations.

We, FRED HOWLES, a British subject, of Glenluce, Water Park Road, Broughton Park, Manchester, and McDougall & YALDING LIMITED, a company duly organised under the laws of Great Britain, of Hampstead Lane, Yalding, in the County of Kent, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has for its object to provide  
[Price 1/-]

vide in a convenient form, a preparation which will serve not only for the destruction of insect pests which attack trees and plants but also for the destruction and the prevention of mould and other fungus diseases of the same. Insecticidal preparations are usually applied in the form of washes whilst sulphur preparations for fungus diseases are usually applied in powder form.

We have discovered that if nicotine be worked up into a powder preparation

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